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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,977	12/30/2003	Angel Stoyanov	25339	8820
28624 7590 05/21/2007 WEYERHAEUSER COMPANY INTELLECTUAL PROPERTY DEPT., CH 1J27 P.O. BOX 9777 FEDERAL WAY, WA 98063			EXAMINER WHITE, EVERETT NMN	
			ART UNIT 1623	PAPER NUMBER
			NOTIFICATION DATE 05/21/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@weyerhaeuser.com

Office Action Summary	Application No. 10/748,977	Applicant(s) STOYANOV ET AL.	
	Examiner Everett White	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/28/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed February 28, 2007 has been received, entered and carefully considered. The amendment affects the instant application accordingly:
 - (A) Comments regarding Office Action have been provided drawn to:
 - (I) 112, first paragraph rejection, which has been maintained for the reasons of record;
 - (II) 103(a) rejections, which have been maintained for the reasons of record.
2. Claims 1-17 are pending in the case.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants amended the claimed invention by inserting into Claim 1 a step "wherein said curing occurs at a temperature from about 160°C to about 215°C". Applicants's amendment with respect to amended Claim 1 herein has been fully considered but is deemed as failing to conform to the written description requirement of the invention since the specification as originally filed does not provide support for "curing at a temperature ranging from about 160°C to about 215°C". This language in the instant claims suggests that this range is specifically recited in the instant specification or that the specification specify or provides examples of a process that involves curing at 160°C, which is not the case. Although, the original specification discloses on page 9, lines 30 and 31, "fibers being cured at a temperature from about 120°C to about 215°C" and discloses on page 9, line 22, "the cured temperature of citric

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acid is about 170°C", it was not noted in the specification a disclosure wherein curing takes place at 160°C.

Consequently, there is nothing within the instant specification, which would lead the artisan in the field to believe that Applicant was in possession of the invention as it is now claimed. See *Vas-Cath Inc. v. Mahurkar*, 19 USPQ 2d 1111, CAFC 1991, see also *In re Winkhaus*, 188 USPQ 129, CCPA 1975.

5. Applicant's arguments filed February 28, 2007 have been fully considered but they are not persuasive. Applicants argue against the rejection on the grounds that one skilled in the art would recognize the narrower limitation of 160°C to 215°C is part of the overall range (120°C to 215°C) in which the invention operates and have disclosed specific temperature values for carrying out the claimed method. This argument is not persuasive since the instant specification does not specifically supports or does not specifically disclose a curing procedure being carried out at a temperature of 160°C. Accordingly, the rejection of Claims 1-17 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement is maintained for the reasons of record.

Claim Rejections - 35 USC § 103

6. Claims 1-4, 6, 10, and 12-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen et al (US Patent No. 5,589,256) for the reasons disclosed on pages 3-5 of the Office Action mailed July 28, 2005.

7. Claims 1, 5-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen et al (US Patent No. 5,589,256) as applied to Claims 1-4 and 12-17 above, and further in view of Hansen et al (US Patent No. 5,789,326) for the reasons disclosed on pages 5 and 6 of the Office Action mailed July 28, 2005.

Response to Arguments

8. Applicant's arguments filed February 28, 2007 have been fully considered but they are not persuasive. Applicants argue against the rejection on the ground that there is no motivation, suggestion or teaching in the Hansen et al patents to arrive at the

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instant invention as claimed. This argument is not persuasive since the Hansen et al patent '256 does disclose the preparation of intrafiber crosslinked cellulosic fibers, which embraces the method of the instant claims. For example, see Example XXVI in columns 41 and 42 wherein Hansen et al '256 discloses non-woven fibrous mats being impregnated with a crosslinking agent, fiberized, dried, and cured. In column 42, the paragraph covering lines 31-46, Hansen et al '256 discloses particle binders being added before or simultaneously with curing, wherein the binder can form covalent intrafiber crosslinks, wherein polycarboxylic acid such as citric acid and polyols may be selected as crosslinking agents, and are consumed during the curing step in the formation of covalent crosslinks. At lines 43 and 44 of column 42, the Hansen et al patent '256 indicates limited cases wherein the crosslinking agent is also a binder. In this example, the Hansen et al '256 patent discloses the temperature at the dryer input as having a range of 200°C to 315°C and the temperature at the second tower outlet was within the range 140°C to 180°C (see column 41, lines 53-56), which appears to cover the curing stage. These temperature values covers at least part of the temperature range disclosed in instant Claim 1. See column 19, line 61, wherein the binder may be selected as a combination comprising a polycarboxylic acid and a polyol.

The Hansen et al 256 patent is silent regarding the specific polyols disclosed in instant Claim 7. However, the Hansen et al '326 patent, which also discloses a process for preparing intrafiber crosslinked cellulose fibers, which are individualized, crosslinked, dried and cured, as substantially set forth in the Hansen et al '256 patent, does specify polyols that may be selected as sorbitol (see Claims 3 and 4 in column 51 of the Hansen et al '326 patent).

The Whiteness Index of the products recited in the Hansen et al patents have not been disclosed. However, Applicants are reminded that products of identical chemical composition cannot have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada* 15 USPQ 2d 1655, 1658 (Fed. Cir. 1990). See MPEP 2112.01. The whiteness index of the products disclosed in the Hansen et al patent '256 patent would be about

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the same as the whiteness index disclosed in instant Claim 1 in view of the use similar starting materials and reaction conditions used in the methods thereof.

Accordingly, the rejections of Claims 1-17 under 35 U.S.C. 103(a) as being unpatentable over the Hansen et al patents are maintained for the reasons of record.

Summary

9. All the claims are rejected.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner's Telephone Number, Fax Number, and Other Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-066127. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



E. White



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